IN THE CLAIMS

Please add claims 8 through 11.

1. (original) An inductive coupler for coupling a signal to a power line, comprising:
a magnetic core for placement about said power line;
a coil wound around a portion of said magnetic core, wherein said signal is coupled to said coil; and
a semiconducting coating that encapsulates said core and contacts said power line.

2. (withdrawn) The inductive coupler of claim 1,
wherein said core has a longitudinal end, and
wherein said inductive coupler further comprises a rounded semiconducting body that covers said longitudinal end and is in electrical contact with said semiconducting coating.

3. (withdrawn) The inductive coupler of claim 1,
wherein said core has a rounded longitudinal end, and
wherein said semiconducting coating covers said rounded longitudinal end.

4. (original) The inductive coupler of claim 1,
wherein said coil has a lead emerging from said core,
wherein said lead is coated with a layer of insulation, and
wherein said inductive coupler further comprises a semiconducting layer over said layer of insulation.

5. (original) The inductive coupler of claim 1,
wherein said coil has a lead emerging from said core, and
wherein said inductive coupler further comprises a semiconducting layer over said lead.

6. (withdrawn) The inductive coupler of claim 1,

wherein said coil has a section of high voltage cable coated with semiconducting material, said semiconducting material being in conductive or capacitive contact with said semiconducting coating, and

wherein said inductive coupler further comprises a stress cone at an end of said coil.

7. (withdrawn) An inductive coupler for coupling a signal to a power line, comprising:

a magnetic core for placement about said power line; and

a coil wound around a portion of said magnetic core,

wherein said coil includes a coaxial cable having an outer conductor at power line potential, and

wherein said cable includes an end with a stress cone.

8. (new) The inductive coupler of claim 1, wherein said magnetic core comprises a first portion and a second portion with an air gap therebetween.

9. (new) The inductive coupler of claim 1, wherein said semiconducting coating is at an electrical potential about equal to that of said power line.

10. (new) An inductive coupler, comprising:

a magnetic core having a first portion and a second portion with an air gap therebetween, configured to provide an aperture through which a power line is routed, wherein said power line is situated adjacent to said first portion;

a coil wound around said second portion; and

a semiconducting coating disposed on a surface of each of said first and second portions, and across said air gap, wherein said semiconducting coating contacts said power line,

wherein said inductive coupler couples a data signal between said coil and said power line via said magnetic core.

11. (new) The inductive coupler of claim 10, wherein said semiconducting coating is at an electrical potential about equal to that of said power line.